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Basal cell carcinoma arising within a longstanding hemangioma

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ABSTRACT

Basal cell carcinomas have been reported to arise within several different tumors. Without careful attention to detail, basal cell carcinomas may go unnoticed when presenting within or directly adjacent to another distinct tumor. The increased use and accessibility of dermoscopy has allowed dermatologists to detect skin cancers that might otherwise be undetected by the naked eye. This case report details a collision, detected by dermoscopy, of a basal cell carcinoma developing within a long-standing hemangioma (cherry angioma) on the left lower eyelid of a 75-year-old man.

KEYWORDS Basal cell; collision; dermoscopy; hemangioma

Basal cell carcinomas are the most common malignancy worldwide, typically arising within sites of chronic ultraviolet radiation exposure.[1] Oftentimes, these tumors are detectable by dermatologists with the naked eye. However, basal cell carcinomas can arise within other tumors such as seborrheic keratoses, epidermoid cysts, and keloids, as well as other skin lesions.[2–4] The ability to detect these common skin cancers early with the utilization of dermoscopy is crucial to prevent further progression as the result of later treatment.

CASE PRESENTATION

A 75-year-old man presented to the dermatology clinic for a full-body skin examination. Upon examination, the provider noted a well-circumscribed, 5 mm red papule on the left lower eyelid *(Figure 1a)*. The patient reported that the lesion had been present for over 10 years, which was confirmed by chart review showing diagnosis as a benign angioma. Upon closer inspection utilizing dermoscopy, the lesion was composed of a central lobular vascular proliferation consistent with a benign angioma. However, on the periphery, arborizing telangiectasias in a milky pink stroma were noted, raising suspicion for basal cell carcinoma *(Figure 1b)*. Following a shave biopsy, histopathology showed nested aggregates of basaloid cells with peripheral palisading within the dermis consistent with basal cell carcinoma. Of note, dilated ectatic lobular collections of blood vessels were also noted consistent with an angioma, leading to the diagnosis of a basal cell carcinoma arising within a benign angioma *(Figure 2)*. The tumor was removed after one stage of Mohs surgery.

DISCUSSION

The ability to detect basal cell carcinomas early in onset is critical to treatment and important in decreasing subsequent morbidity. One study noted the size of periocular basal cell carcinomas to increase in length by 0.75 mm per month.[5,6] Delay in treatment of >1 year between provider evaluation of a keratinocyte carcinoma and Mohs micrographic surgery has been associated with surgical defects twice the size as those in which delay was shorter. The same study noted that an important predictor in the delay of treatment was an initial misdiagnosis, further illustrating the need for accurate and early detection of collision lesions and skin cancer.[7] Early detection at a smaller size is important for the eventual treatment, surgical closure, and cosmetic outcome.[5]

The utilization of dermoscopy enhances clinicians' ability to detect skin cancer accurately and at an earlier stage. One meta-analysis showed an increase in sensitivity when evaluating basal cell carcinomas from 66.9% with the naked eye to 85% with the naked eye and dermoscopy, along with an increase in specificity.[8] Without dermoscopy, the basal cell carcinoma component of this case would have been difficult to detect and distinguish from the angioma that was present for over a decade. The dermoscopy features most reliably used to identify basal cell carcinomas are arborizing

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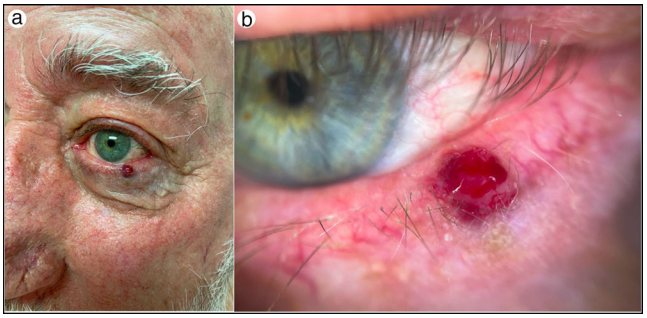

Figure 1. **(a)** Clinical photo demonstrating a well-circumscribed, 5 mm red papule on the left lower eyelid. **(b)** Dermoscopy photograph showing a central lobular vessel proliferation with peripheral telangiectasias in the background of milky pink stroma.

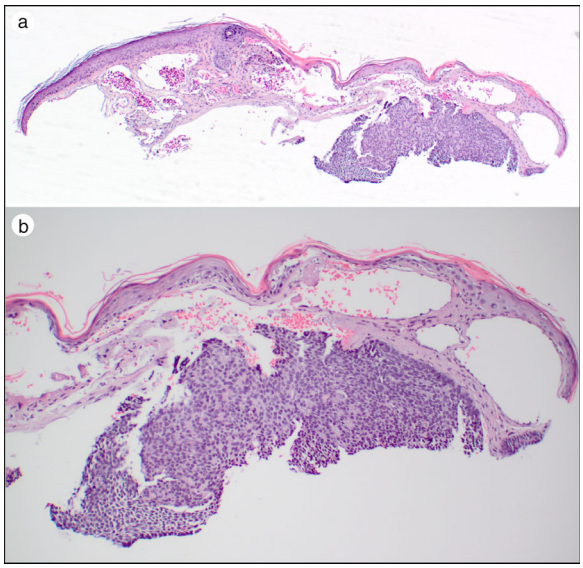

Figure 2. Histopathology photographs (hematoxylin and eosin staining) showing superficial dilated ectatic blood vessels. Within the dermis, a blue basaloid proliferation with peripheral palisading is noted. **(a)** 40×; **(b)** 100×.

telangiectasias, leaflike areas, and blue/gray ovoid nests, although a multitude of dermatoscopic features can be present in basal cell carcinomas.[9]

The increased utilization of dermoscopy may aid dermatologists' ability to detect nonmelanoma skin cancers. Lesions presenting within or adjacent to other distinct clinical entities may be overlooked if examined too quickly or with the naked eye alone. This case demonstrates the importance of a thorough examination of all skin lesions, even those present for a long time. This case also demonstrates the benefits of dermoscopy and its ability to help distinguish different clinical entities while increasing the accuracy of the diagnosis, leading to earlier treatment and potentially decreased morbidity for patients.

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